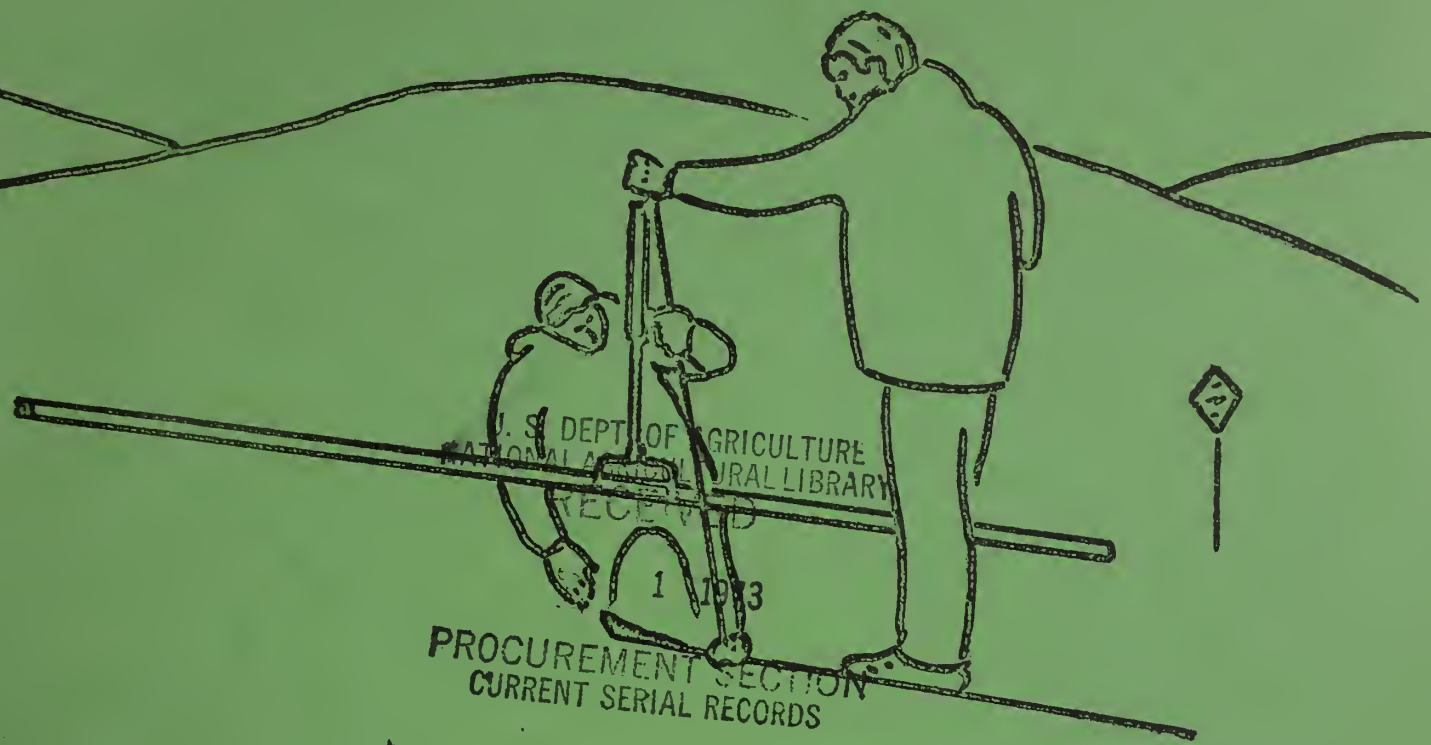


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WATER SUPPLY OUTLOOK FOR ARIZONA

APRIL 15, 1973

ARIZONA WATER SUPPLY OUTLOOK

APRIL 15, 1973

The water supply outlook this year is excellent, with large amounts of carry-over storage available for next year on most projects.

SNOW COVER

Snow finally stopped falling, but due to cold temperatures the snowpack has declined amazingly little. Only 2 to 4 inches has melted, amounting to a 20% reduction of water content. The snow line, however, has raised considerably with practically no snow left below 7,000 feet.

The deepest snow ever measured in Arizona occurred this year on Mt. Ord. The 150 inches reported April 1 has settled to 134 inches, but the 52.6 inches of water content by far exceeds any previous measurement. Snow will not disappear at the 11,000 foot level until mid-July. The aerial markers on the San Francisco Peaks are completely buried, so conditions there are likely to be similar to the White Mountains. Ground crews were unable to reach this area, but plan to make the trip May 1.

PRECIPITATION

April precipitation has been much below normal so far. Since November 1, however, precipitation has been twice average on the Verde Watershed, 60% above average on the Salt and Little Colorado Rivers, and 45% above average on the Gila Watershed.

RESERVOIR STORAGE

Most reservoirs are at maximum operating levels. So far 800,000 acre-feet has been released from Salt River Project reservoirs into the Salt River Channel and 200,000 more is likely to be necessary. Most of this 1 million acre-feet, worth over \$10 million dollars, could have been saved if we had Orme Dam. Lyman Reservoir is now only half full, but is expected to fill as runoff increases at the higher elevations later this month. Storage in San Carlos is steadily rising and could exceed the previous maximum set in 1942 if most of the inflow occurs before the heavy use starts.

STREAMFLOW AND WATER SUPPLY

Runoff was very high the first half of April with Salt River Project streams producing almost 400,000 acre-feet. Another 600,000 acre-feet is expected by the end of May. The total spring runoff (January-May) will be four times average, amounting to about 2 million acre-feet. This is the heaviest runoff since 1941. Conditions on the Gila River, as usual, are not nearly as good. Flows will not exceed that received in 1968.

Water supplies will be plentiful this year with significant carry-over storage available for next year.

THIS IS THE FINAL REPORT OF THE SEASON.

STREAMFLOW FORECASTS

ABOUT APRIL 15,
1973

STREAMFLOW FORECASTS		THIS YEAR		PAST RECORD		
BASIN STREAM and/or FORECAST POINT		FORECAST		THOUSAND ACRE FEET		
		Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average †
<u>SALT RIVER DRAINAGE</u>						
Salt near Roosevelt		350	412	April	15.3	85.0
"		550	452	Apr-May	24.6	121.7
Tonto Creek near Roosevelt		54	835	April	0.5	6.5
"		61	792	Apr-May	0.8	7.7
Verde River above Horseshoe		358	880	April	10.7	40.7
"		388	774	Apr-May	19.1	50.1
Total Salt River Project		762	576	April	26.5	132.2
"		999	556	Apr-May	44.5	179.5
<u>GILA RIVER DRAINAGE</u>						
Gila River at Calva		130	812	Apr-May	2.7	16.0
Gila River near Gila		75	446	Apr-May	6.5	16.8
Gila River near Solomon		125	498	April	4.7	25.1
"		190	549	Apr-May	8.1	34.6
Gila River near Virden		105	603	Apr-May	5.9	17.4
Frisco River at Clifton		100	529	Apr-May	4.9	18.9
Frisco River at Glenwood		50	617	Apr-May	2.3	8.1
<u>LITTLE COLORADO RIVER DRAINAGE</u>						
Little Colo. River above Lyman Dam		22	360	Apr-June	0.6	6.1
<u>GRANITE CREEK DRAINAGE</u>						
Granite Creek		2	---	Apr-May	---	---
Willow Creek		0.8	---	Apr-May	---	---
<u>MIMBRES RIVER DRAINAGE</u>						
Mimbres River near Mimbres		4	308	Apr-May	0.7	1.3
<u>COLORADO RIVER DRAINAGE</u>						
Virgin River near Littlefield		105	314	Apr-June	13.0	33.4
Colorado River -- Lake Powell Inflow (Issued by SCS, Salt Lake)		7,683	118	Apr-July	---	6,527
† Based on the 15-year period, 1953-67						

1973

SPRING RUNOFF

STREAM AND STATION	Measured ^{1/} Runoff Jan-March	Forecast Runoff April-May	Total- 1973	January thru May 15-Year Average	% of Average
Salt River at Intake	509.0	550	1059.0	280.9	377
Verde River above Horseshoe	354.2	388	742.2	171.9	432
Tonto Creek above Roosevelt	113.9	61	174.9	42.6	411
Gila River near Virden	155.2	105	260.2	59.3	439
Gila River near Solomon	298.6	190	488.6	119.6	409
Gila River near Calva	288.3	130	418.3	78.2	535
Frisco River at Clifton	122.6	100	222.6	59.8	372
Little Colorado Jan-June	6 *	22	28	9.0	311

^{1/} Provisional runoff obtained from USGS

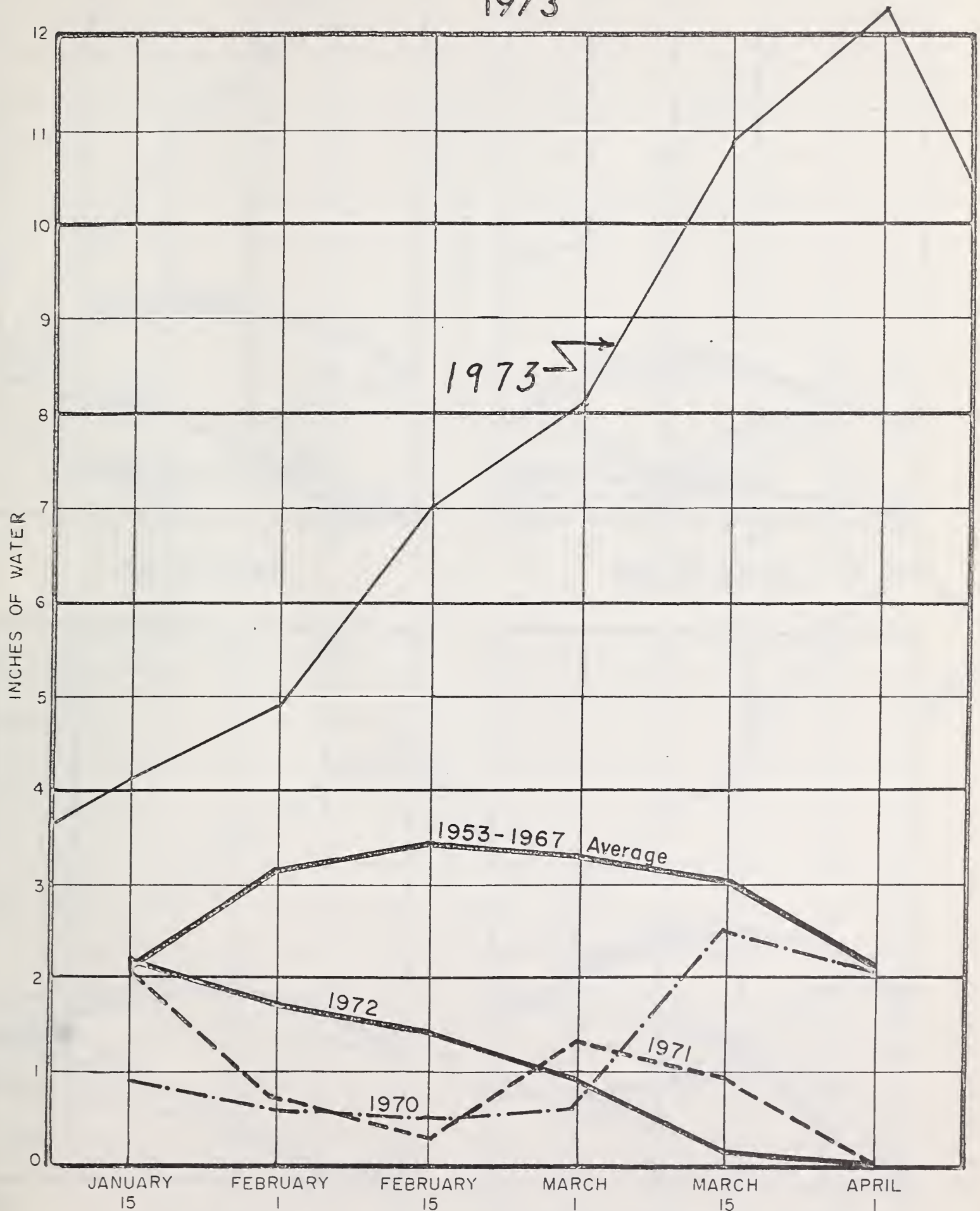
* Partially estimated

RESERVOIR STORAGE (Thousand Acre Feet) MID-MONTH READING

ABOUT APRIL 15, 1973

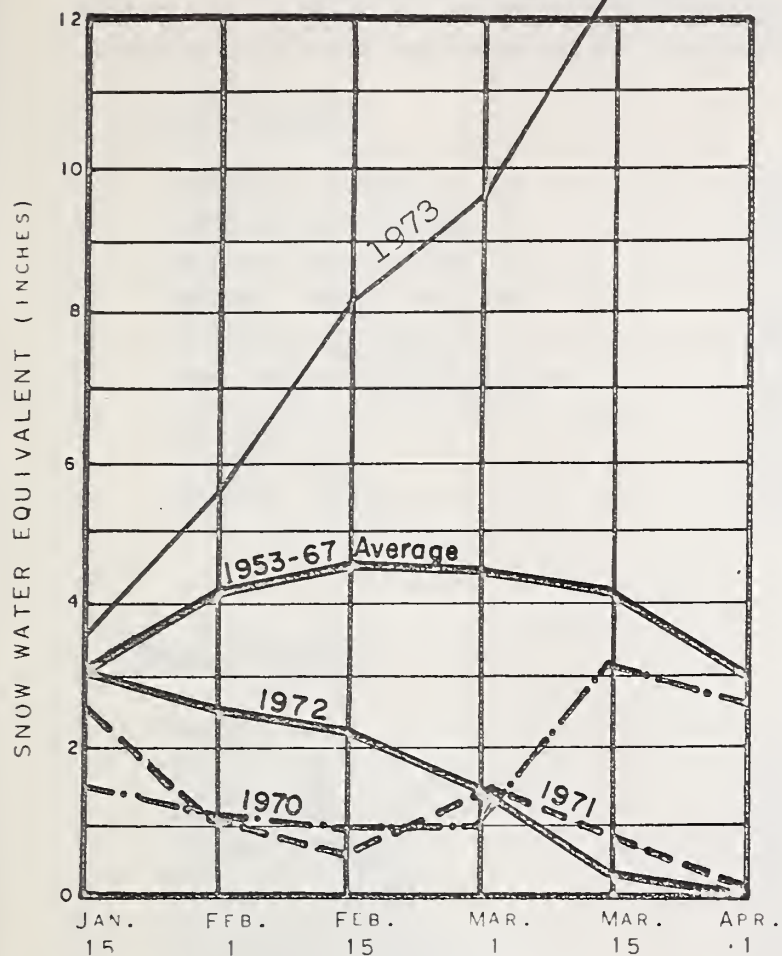
Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
<u>GILA RIVER DRAINAGE</u>					
Agua Fria	Lake Pleasant	157.6	157.2	NO AVERAGE FOR THIS DATE	
Granite	Watson Lake	4.7	4.7		
Granite	Willow Creek	6.1	6.1		
Gila	San Carlos	948.6	726.7		
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1755.0	1579.0		
Verde (2)	Bartlett & Horseshoe	317.7	298.0		
Salt and Verde	6 Salt River Project Reservoirs	2072.7	1877.0		
<u>COLORADO RIVER DRAINAGE</u>					
Little Colorado	Lyman	30.6	15.0		
Little Colorado	Show Low Lake	5.1	5.1		
- 4 -					

RELATIVE SNOW WATER ACCUMULATION ARIZONA 1973

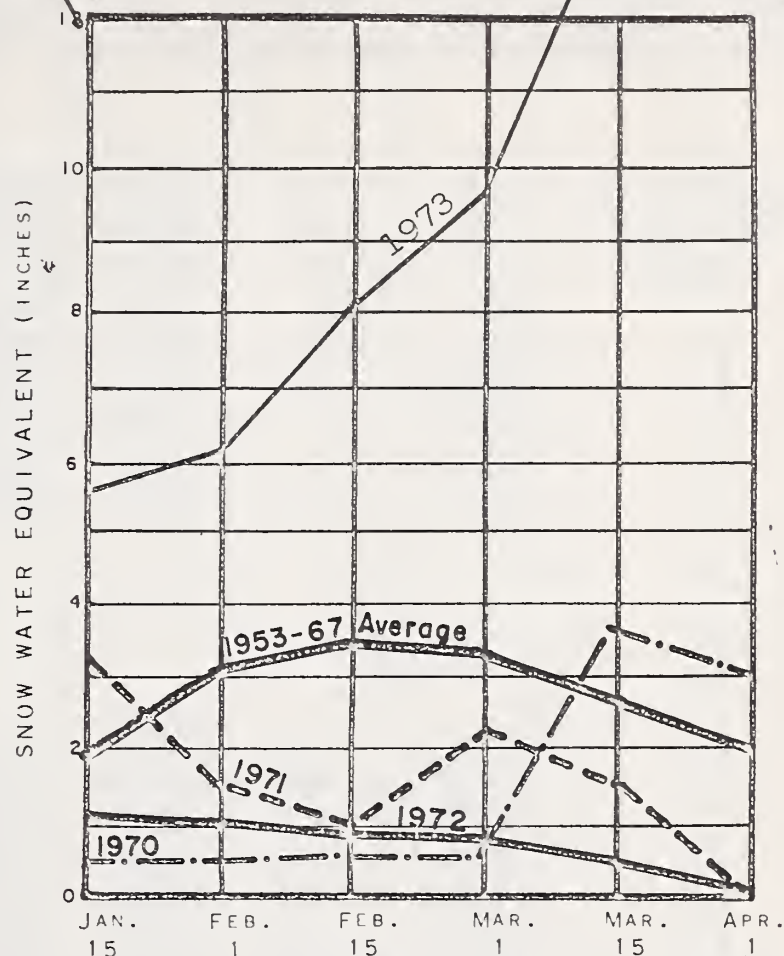


This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

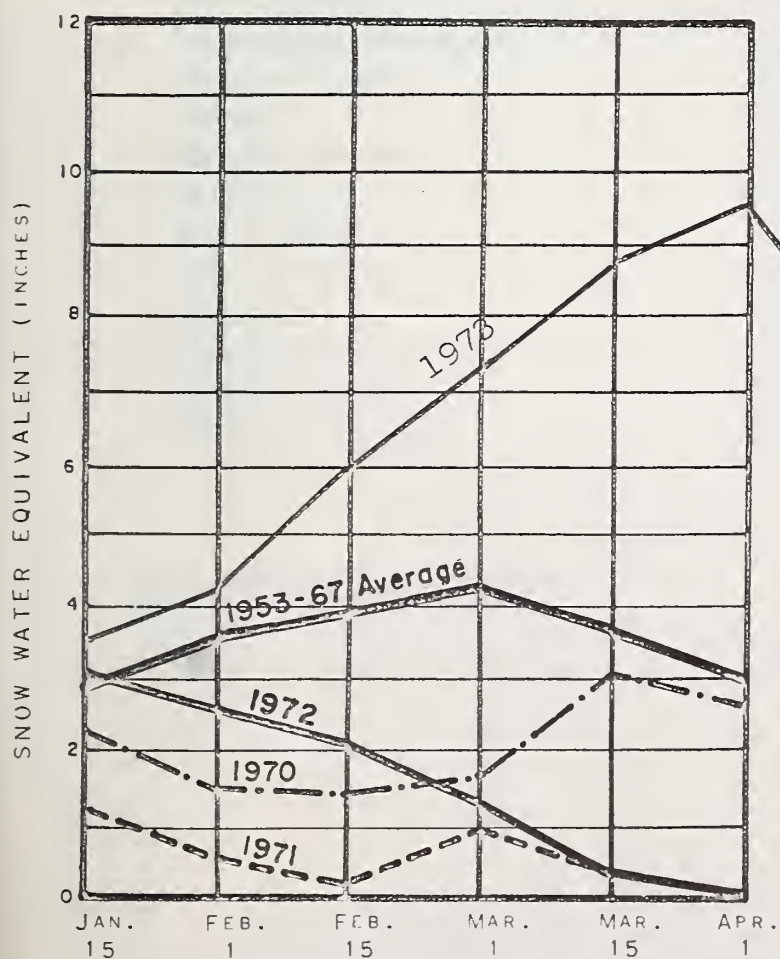
ARIZONA SNOW COVER BY WATERSHEDS



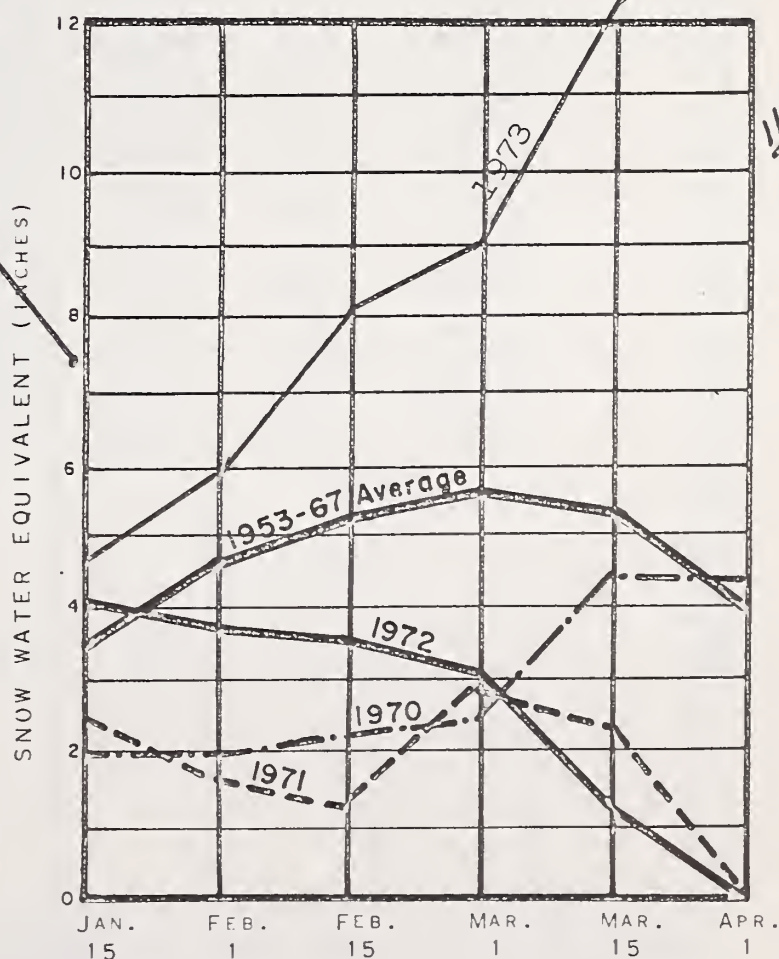
SALT RIVER



VERDE RIVER



GILA RIVER



LITTLE COLORADO RIVER

SNOW

ABOUT APRIL 15, 1973

SNOW		ABOUT APRIL 15, 1973		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE				Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME		Elevation	Last Year				Average †	
<u>GILA RIVER</u>								
Beaver Head	8000	4/13	13	4.4	NO AVERAGE FOR THIS DATE			
Coronado Trail	8000	4/12	13	5.3				
Emory Pass #1 *	7800	4/13	0	0.0				
Emory Pass #2 *	7800	4/13	0	0.0				
Frisco Divide	8000	4/13	13	4.4				
Hannagan Meadows *	9090	4/13	53	19.2				
Mogollon	7000	4/13	0	0.0				
Nutriososo	8500	4/12	9	2.5				
State Line	8000	4/13	14	6.1				
<u>SALT RIVER</u>								
Baldy *	9125	4/13	42	14.9				
Baldy #2 *	9750	4/12	83	33.2				
Baldy #3 *	10950	4/12	117	47.1				
Beaver Head	8000	4/13	13	4.4				
Canyon Creek	7500	4/13	27	11.0				
Canyon Point	7600	4/13	32	13.4				
Coronado Trail	8000	4/12	13	5.3				
Forest Dale	6430	4/13	0	0.0				
Ft. Apache	9160	4/13	42	14.7				
Hannagan Meadows	9090	4/13	53	19.2				
Hawley Lake	8300	4/13	45	19.8				
Heber	7600	4/13	30	13.5				
Maverick Fork	9050	4/13	49	18.7				
McNary	7200	4/13	18	6.8				
Milk Ranch	7000	4/13	9	3.2				
Mt. Ord (A)	11000	4/11	134	52.6				
Nutriososo *	8500	4/12	9	2.5				
Sunrise Summit	10600	4/11	80	28.2				
Wilson Lake	9000	4/13	51	20.1				
Workman Creek	6900	4/12	40	17.6				
<u>BILL WILLIAMS RIVER</u>								
Copper Basin Divide	6720	4/13	9	3.3				
† 1953-67 15-year period. (*) Adjacent drainage. (A) Aerial Observation: Water content estimated.								
- 7 -								

SNOW

ABOUT APRIL 15, 1973

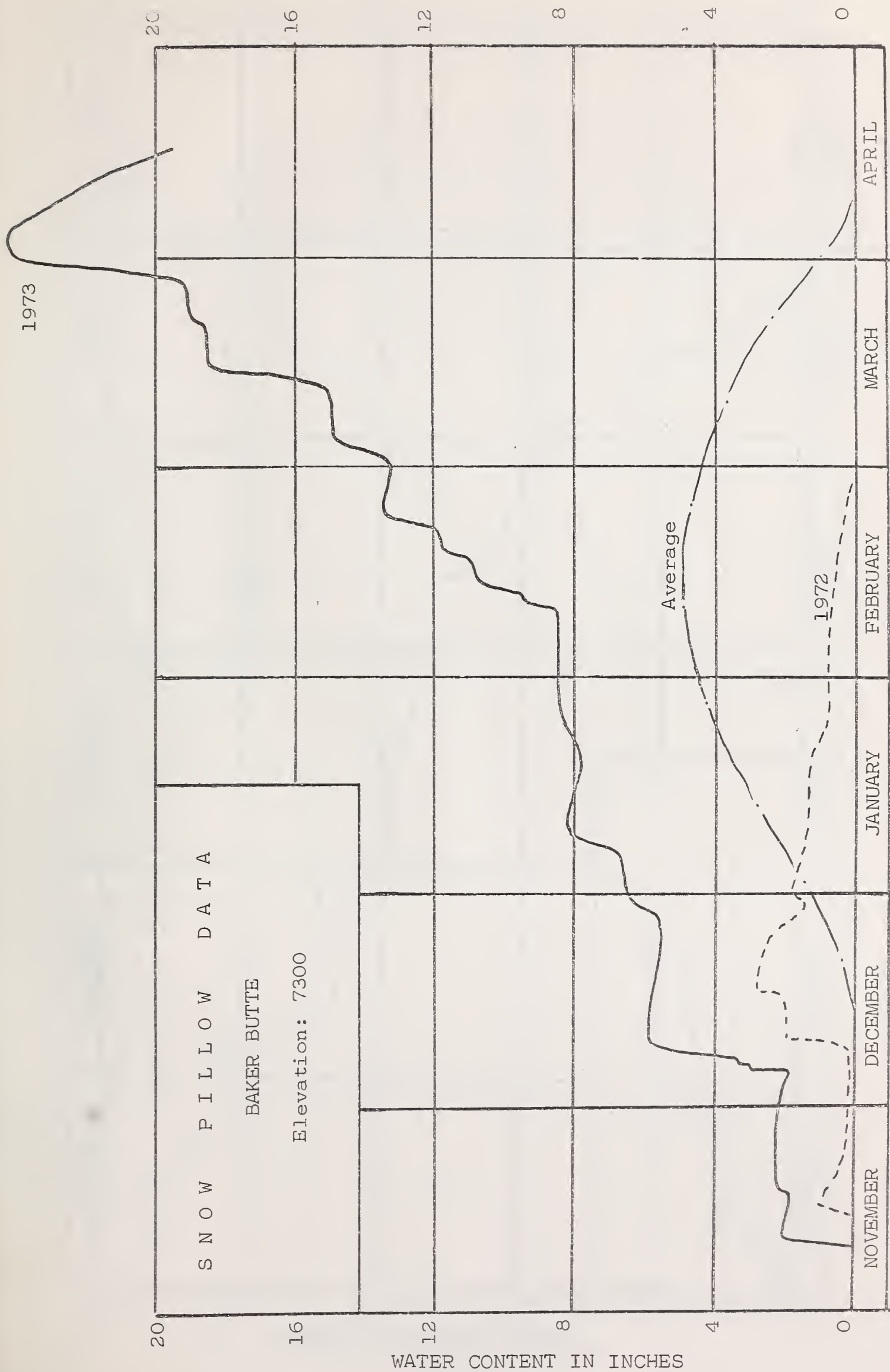
SNOW		ABOUT APRIL 15, 1973		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)			
NAME	Elevation				Last Year	Average †		
<u>VERDE RIVER</u>								
Baker Butte	7300	4/13	46	19.4	NO AVERAGE FOR THIS DATE			
Baker Butte #2	7700	4/13	69	29.7				
Chalender *	7100	4/13	25	8.9				
Copper Basin Divide	6720	4/13	9	3.3				
Fort Valley	7350	4/13	18	5.9				
Gaddes Canyon	7600	4/13	50	18.8				
Happy Jack	7630	4/13	49	18.3				
Mingus Mountain	7100	4/13	4	1.6				
Mormon Lake *	7350	4/13	41	16.7				
Mormon Mountain	7500	4/13	54	21.8				
Newman Park	6750	4/13	26	9.9				
White Horse Lake Jct.	7150	4/13	34	13.4				
White Spar	6000	4/13	0	0.0				
<u>LOWER COLORADO RIVER</u>								
Bill Williams Int.	8550	4/13	76	27.9				
Bill Williams Summit	8950	4/13	83	30.1				
Bright Angel	8400	4/13	57	22.0				
Chalender *	7100	4/13	25	8.9				
Fort Valley	7350	4/13	18	5.9				
Williams Ski Run	7720	4/13	70	24.6				
<u>LITTLE COLORADO RIVER</u>								
Agassiz	11200	4/5	Over 102" Depth					
Baldy	9125	4/13	42	14.9				
Baldy #2	9750	4/12	83	33.2				
Baldy #3	10950	4/12	117	47.1				
Canyon Creek	7500	4/13	27	11.0				
Canyon Point	7600	4/13	32	13.4				
Cheese Springs	8600	4/13	26	9.3				
Doyle Saddle	10900	4/5	Over 102" Depth					
Forest Dale	6430	4/13	0	0.0				
Ft. Apache	9160	4/13	42	14.7				
Fort Valley	7350	4/13	18	5.9				
Happy Jack *	7630	4/13	49	18.3				
Heber	7600	4/13	30	13.5				
Inner Basin #1	10100	4/5	125	43.9				
Inner Basin #2	9750	4/5	95	31.2				
McNary	7200	4/13	18	6.8				
Mormon Lake	7350	4/13	41	16.7				
Mormon Mountain	7500	4/13	54	21.8				
Nutriosio	8500	4/12	9	2.5				
Wilson Lake *	9000	4/13	51	20.1				
† 1953-67 15-year period. (*) Adjacent drainage. (A) Aerial observation: Water content estimated.								
- 8 -								

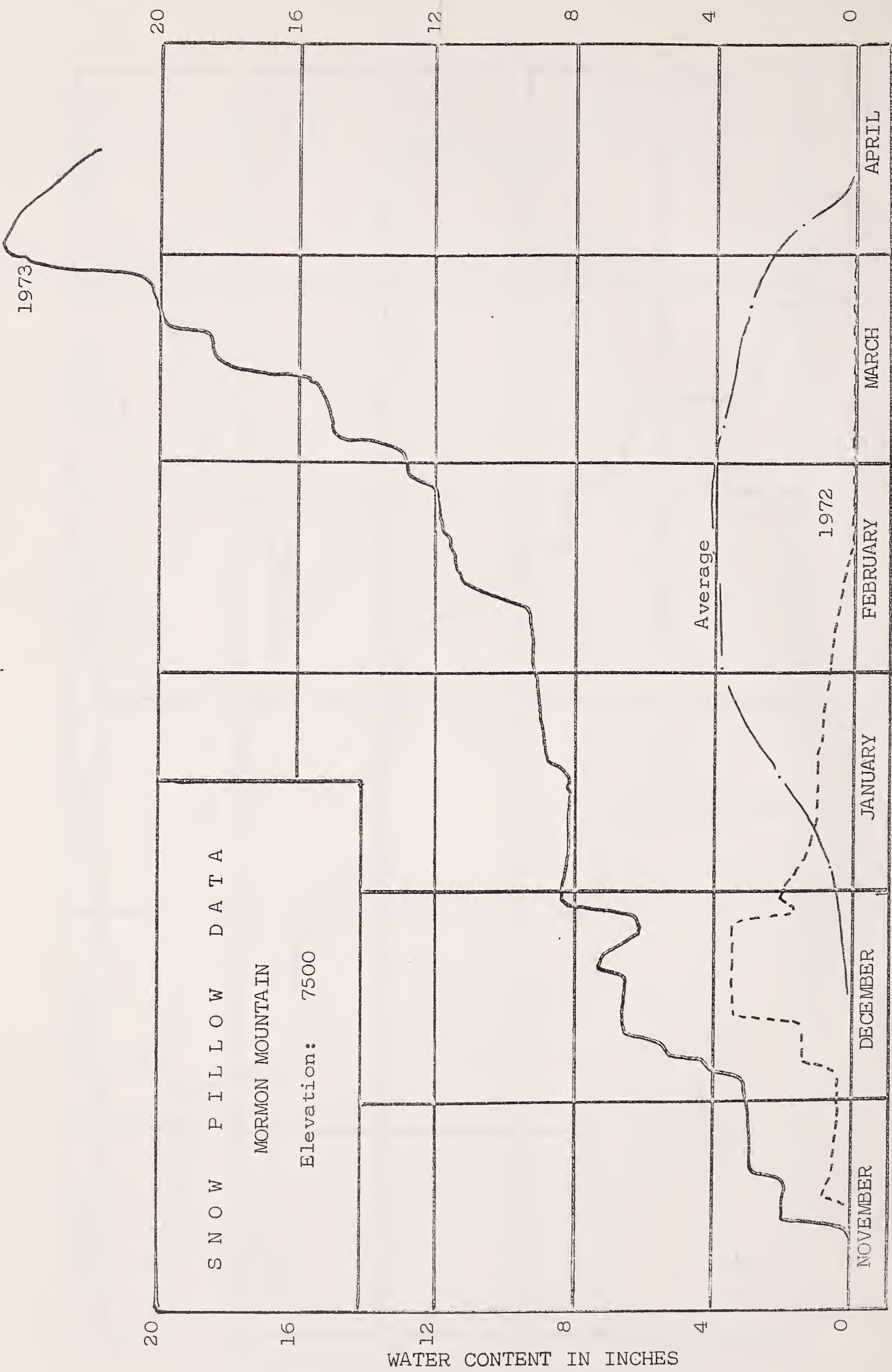
SNOW

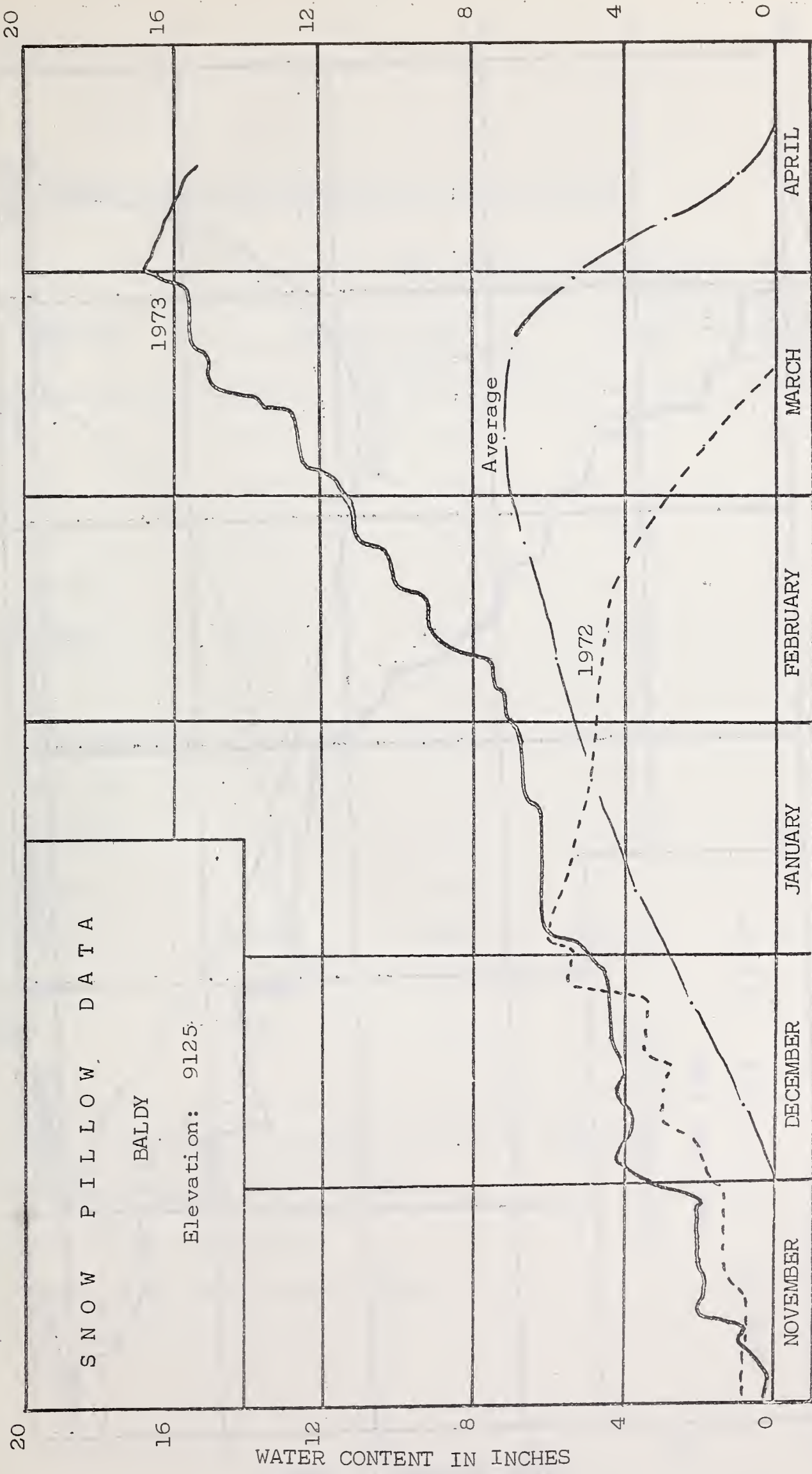
1973 ADDITIONS

SNOW		1973 ADDITIONS		THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)			
NAME	Elevation				Last Year	Average †		
<u>GILA RIVER</u>								
Bear Wallow	8100	2/14	7	2.1	0.0	4.3		
Coronado Trail	8000	3/22	22	8.6	No Average			
Rose Canyon	7300	2/14	8	2.3	0.0	2.8		
<u>SALT RIVER</u>								
Forest Dale	6430	3/21	5	2.0	No Average			
McNary	7200	3/21	24	9.0	"			
Smith Cienega (A)	9850	3/22	103	34.1	"			
<u>VERDE RIVER</u>								
Baker Butte	7300	3/23	60	19.1	No Average			
Mingus Mountain	7100	3/21	14	3.8	"			
<u>LOWER COLORADO RIVER</u>								
Chalender *	7100	3/22	37	9.9	No Average			
Fort Valley	7350	3/22	33	8.4	"			
<u>LITTLE COLORADO RIVER</u>								
Canyon Creek	7500	3/23	42	13.0	No Average			
Canyon Point	7600	3/23	47	14.6	"			
Doyle Saddle	10900	2/8	Over 102"	Depth	"			
Doyle Saddle	10900	3/5	Over 102"	Depth	"			
Happy Jack	7630	3/22	54	16.4	"			
Heber	7600	3/23	45	14.6	"			

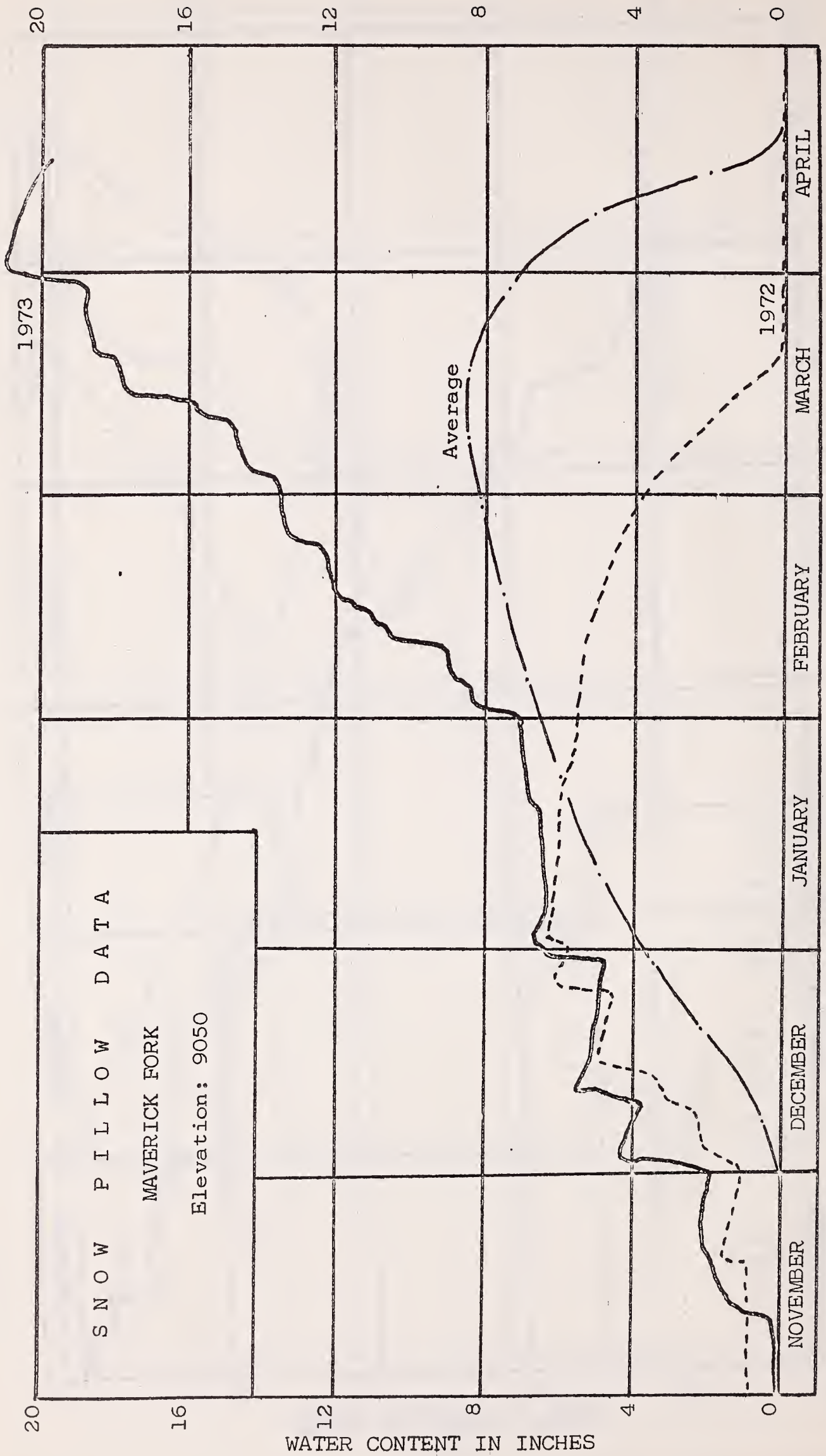
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WATER CONTENT IN INCHES



PRECIPITATION AT SELECTED ARIZONA STATIONS ^{1/}

STATION	Precipitation (Inches)			
	March - 1973		Current Water Year (Oct. 1972-March 1973)	
	Departure from		Departure from	
	Total	Normal	Total	Normal
Alpine	2.25	+ 1.01	18.16	+ 10.14
Ash Fork	1.93	+ .96	12.84	+ 7.10
Clifton	1.00	+ .28	9.69	+ 4.69
Douglas Smelter	1.69	+ 1.23	7.53	+ 3.99
Flagstaff WSO*	6.18	+ 4.73	28.09	+ 18.86
McNary	9.33	+ 6.80	28.73	+ 15.96
Payson Ranger Station	5.01	+ 3.30	26.08	+ 15.31
Phoenix WSFO **	1.69	+ 1.03	10.15	+ 6.11
Prescott (City)	5.02	+ 3.26	21.51	+ 11.76
Springerville	.97	+ .35	5.55	+ 1.96
Tucson WSO*	2.20	+ 1.67	10.28	+ 5.91
Winslow WSO*	2.07	+ 1.68	11.27	+ 8.43
Yuma WSO*	.95	+ .71	4.22	+ 2.41

1/ Data and Analysis furnished by Paul C. Kangieser
NOAA Climatologist for Arizona
National Weather Service, Phoenix

WSO* Weather Service Office

WSFO* Weather Service Forecast Office



PRECIPITATION (Inches)

ABOUT APRIL 15, 1973

DRAINAGE BASIN and
 PRECIPITATION GAGE LOCATION

ELEVATION

CURRENT INFORMATION

FROM APPROX. NOV. 1 TO DATE

		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
Hannagan Meadows **	9030	4/13	.90	1.82*	21.78	15.06*	145
Frisco Divide **	8000	4/13	.70	---	11.11	---	---
<u>SALT RIVER</u>							
Canyon Point	7600	4/13	1.00	1.32*	31.47	18.45*	171
Hannagan Meadows **	9030	4/13	.90	1.82*	21.78	15.06*	145
Little Wildcat (Heber Snow Course)	7600	4/13	.80	.93*	26.22	15.45*	170
Maverick Fork	9050	4/13	.91	.87*	20.02	13.39*	150
Workman Creek **	6970	4/12	0	.90	28.83	18.16	159
Wilson Lake	9100	4/13	.61	---	19.20	---	---
<u>VERDE RIVER</u>							
Baker Butte	7300	4/13	.82	1.10*	30.45	18.55*	164
Copper Basin Divide	6720	4/13	.50	.76*	25.64	11.92*	215
Fort Valley **	7350	4/13	.68	.92	16.73	10.02	167
Happy Jack **	7480	4/13	1.39	1.10*	25.97	12.39*	210
Mingus Mountain	7660	4/14	.20	.95	21.65	10.74	202
Mormon Mountain	7500	4/13	1.30	1.05*	33.33	16.26*	205
White Horse Lake Jct. **	7150	4/13	0	---	23.92	---	---
<u>LITTLE COLORADO</u>							
Inner Basin #1	9830	4/5	---	---	29.12	15.33	190
Inner Basin #2	10050	4/5	---	---	35.96	---	---
Sheep Crossing (Baldy Snow Course)	9125	4/13	1.03	.91*	19.22	12.67*	152
Little Wildcat (Heber Snow Course)	7600	4/13	.80	.93*	26.22	15.45*	170
Greer Lakes	8500	4/13	.35	.46	8.05	6.56	123

† 1953-67 Average
 * Adjusted Average
 ** Data Supplied by
 U. S. Forest Service



The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

- Department of Agriculture
 - Soil Conservation Service
 - Forest Service
 - Apache Forest
 - Coconino Forest
 - Coronado Forest
 - Gila Forest
 - Kaibab Forest
 - Prescott Forest
 - Rocky Mountain Forest and Range Experiment Station
 - Tonto Forest
- Department of Commerce
 - NOAA, National Weather Service
- Department of Interior
 - Bureau of Reclamation
 - Region III
 - Geological Survey
 - Arizona District
 - New Mexico District
 - Bureau of Indian Affairs
 - Fort Apache Reservation
 - San Carlos Irrigation Project
 - National Park Service
 - Grand Canyon National Park
- Gila Water Commissioner
 - Safford, Arizona

STATE

- Arizona Game and Fish Department
- Arizona State Parks Board
- University of Arizona
 - Arizona Agricultural Experiment Station
 - Water Resource Research Center
 - Department of Watershed Management

MUNICIPAL

- City of Flagstaff

IRRIGATION PROJECTS

- Salt River Valley Water User's Association
 - Phoenix, Arizona
- San Carlos Irrigation and Drainage District
 - Coolidge, Arizona
- Maricopa County Municipal Water Conservation District

PRIVATE

- Southwest Forest Industries, Inc.
 - McNary, Arizona
- Fort Apache Indian Reservation
 - White Mountain Recreation Enterprises

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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